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# Vinton Furnace Experimental Forest



U. S. Department of Agriculture — Forest Service  
Central States Forest Experiment Station  
in cooperation with  
The Baker Wood Preserving Company,  
McArthur Division

## THE BAKER WOOD PRESERVING COMPANY

SUBSIDIARY  
OF  
D. B. FRAMPTON & COMPANY  
HUNTINGTON BANK BUILDING  
COLUMBUS 15, OHIO

April 15, 1955

Dr. W. G. McGinnies, Director  
Central States Forest Experiment Station  
111 Old Federal Building  
Columbus 15, Ohio

Dear Dr. McGinnies:

On next July 6, we will have completed the third year of your management of our property known as VINTON FURNACE EXPERIMENTAL FOREST in keeping with our agreement.

Because our company is vitally interested in sound forestry practices, Tree Farms, timber utilization and related activities, we are both working to the end that "down to earth" research in growing, managing, harvesting, utilizing timber, and the very important feature of water and multiple land use, should be initiated and conducted here within the State of Ohio.

We all recognize that research in forestry is far behind research in other phases of agriculture. We are most optimistic that our joint effort will contribute materially to a better understanding of the problems involved. This should benefit all land and timber owners throughout the Hardwood Region.

Several years before our joint project began, our company had dedicated approximately 65,000 acres of Tree Farms on which we have established 1,300 test plots. The value of the data resulting from these test plots will be more important because of the program at our joint experimental forest.

We compliment you and your associates upon your selection of a splendid group of trained men for the management of our research project. We are encouraged with the progress made in the first three years; we know that we will work in harmony together to the ultimate end that all persons interested in trees will profit no end.

With every good wish for your continued success, I am,

Sincerely yours,



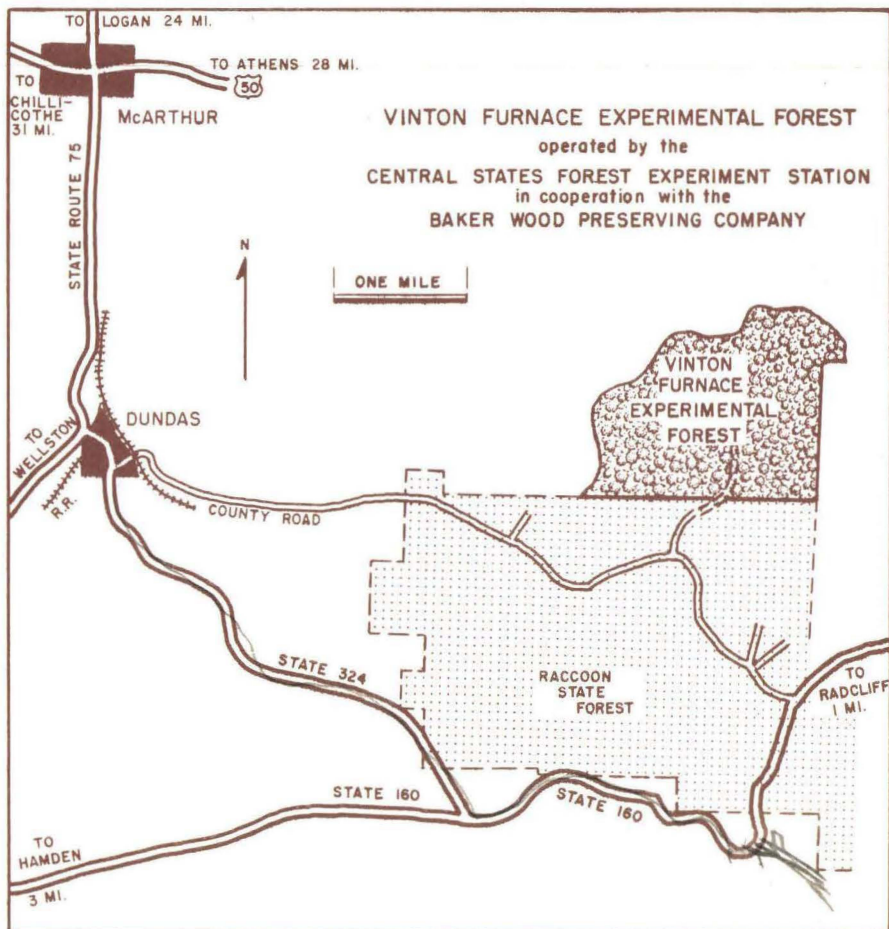
D. B. Frampton, President

DBF:md

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## LABORATORY IN THE WOODS

Most people think of a laboratory as a room filled with mysterious-looking glassware and weird apparatus; a room of disagreeable odors and bubbling concoctions of chemicals. But there are other kinds of laboratories. Indeed, some laboratories are not confined to a room or a building. So it is with a forest laboratory. It is a tract of woods in the outdoors where experiments with growing trees are carried on.

The Vinton Furnace Experimental Forest is a "laboratory-in-the-woods." The people who work in this laboratory are technically trained foresters who conduct experiments involving such things as tree growth, timber harvesting, and forest-watershed management.

There is one important difference between experiments in chemistry and physics: The latter can usually be completed in a matter of hours or days, but experiments in forestry often take years -- sometimes generations -- to complete. That is why so many important problems in forestry are still unsolved. For example, it may take a white oak tree 100 years to grow from an acorn to a tree big enough to saw into lumber. It may take a pine tree 5 to 8 years to grow from a seedling to Christmas-tree size. It may take a soft maple tree 30 years to grow from a small seed to a tree that would be profitable to cut for pulpwood. Thus the forester who begins an experiment with seedlings, may have to wait several decades before his experiment is completed.

The Vinton Furnace Experimental Forest is located in Vinton County 9 miles south of McArthur, the county seat. This 1,200-acre forest is part of a much larger wooded tract owned by The Baker Wood Preserving Company, McArthur, Division. The experimental forest adjoins the Raccoon State Forest.

This area was selected as the site for a woods laboratory because the timber and the land are typical of conditions in southeastern Ohio. The gently rolling to steep and hilly tract is 100 percent forested. Many species of trees are found and the important ones are listed elsewhere in this booklet.



## FORESTS IN OHIO

Forests are an important resource in Ohio, and forestry is an important industry. Few people realize that the entire State is more than 20 percent forested and that forests occupy nearly half of the hilly land in the southeastern part. At one time the finest hardwoods in the world grew in this great central hardwood region of which Ohio is a part, but today only a few scattered remnants of this forest remain. The present forests that we see are two, three, or more generations removed from the original forests seen by the first settlers. Past cutting and uncontrolled fire have changed Ohio's forests, lowered the quality of wood materials that can now be cut, and have created unique forest-management problems that must be solved before our present forests can be made fully productive.

The forest conditions in this region today are the result of an interesting history.



**Typical Old Iron Furnace**

## FORESTS AND IRON

During the 1800's southeastern Ohio was a great producer of iron. Ore was smelted near the mines in furnaces that burned charcoal made from trees cut locally. More than 40 of these furnaces were scattered throughout the region. It took about 5 cords of wood to yield 200 bushels of charcoal and in 1860 one furnace alone consumed 300,000 bushels. So the nearby forests were steadily depleted to satisfy the appetites of the furnaces. As the fame of the iron produced here spread, so also did the extent of the clear-cut areas until it became necessary to haul charcoal long distances by oxen and wagon.

For more than half a century some of the best iron in the world flowed from these smelters. But the discovery of richer, more abundant ores in Michigan and Minnesota doomed the iron industry in Ohio. Soon all that was left of this once-thriving business were the ruins of the furnaces -- and the remnants of the forests. The old furnaces will never again have anything more than historic value. But in the rapidly recovering forests there exists a potential for great commercial value; with man's help, the forest can again attain a prominent place in the economy of the region.

It was to help develop and nurture this value that an experimental forest was established in 1952 near the ruins of the old Vinton Furnace.

## FORESTS AND RESEARCH

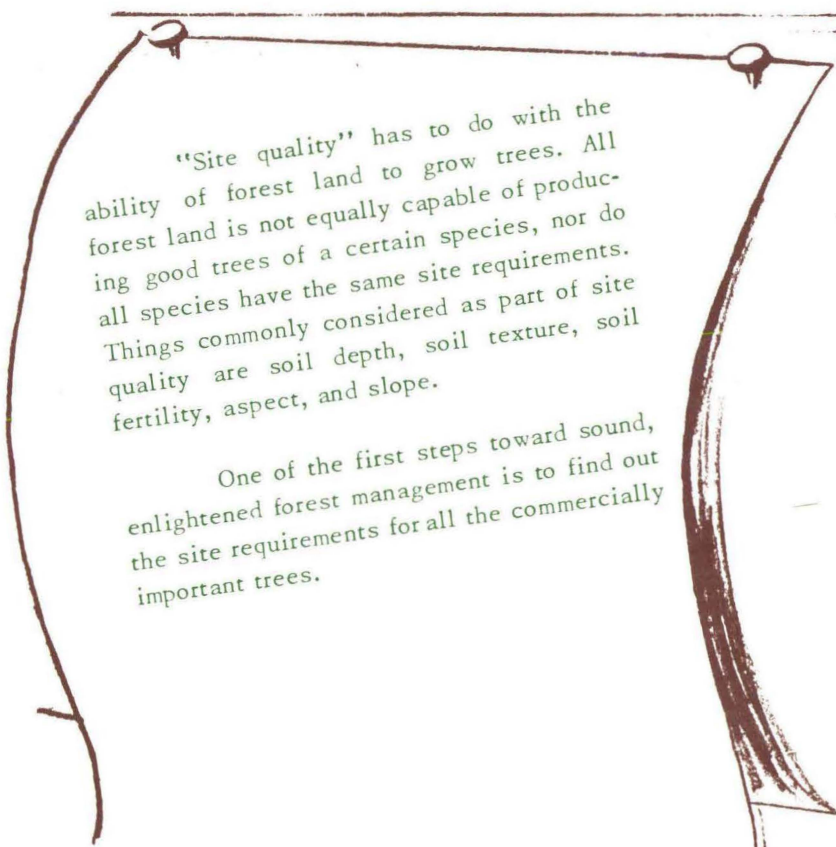
Throughout the country forest problems vary with the species of trees that are found and the way the timber has been treated. Research by private and public agencies is underway to solve these problems. In the central hardwood region an expanding program of forest research is being carried out by industry, universities, state experiment stations, and forestry agencies. In Ohio both the Ohio Agricultural Experiment Station at Wooster and the Athens Research Center of the U. S. Forest Service have research programs directed towards solving Ohio's forest problems.

When a need was indicated for a laboratory in the woods to conduct forest research in Ohio, The Baker Wood Preserving Company, McArthur Division, leased to the Forest Service the tract now known as the Vinton Furnace Experimental Forest. The cooperative agreement between the Forest Service and The Baker Wood Company has enabled a program of research to go forward since the agreement became effective in 1952. Thus, this woods laboratory is a result of cooperation between private and public agencies working toward a common goal -- solving the important forest problems in Ohio for the benefit of the forest landowners and the public in general.

On the following pages we have tried to describe and picture some of the major phases of forest research needed in Ohio. Most of these subjects are receiving attention right now at the Vinton Furnace Experimental Forest. The rest rank high in our plans for the future.



"Seeing is believing." Many interested groups and individuals visit the experimental forest every year to see for themselves the results of our research.

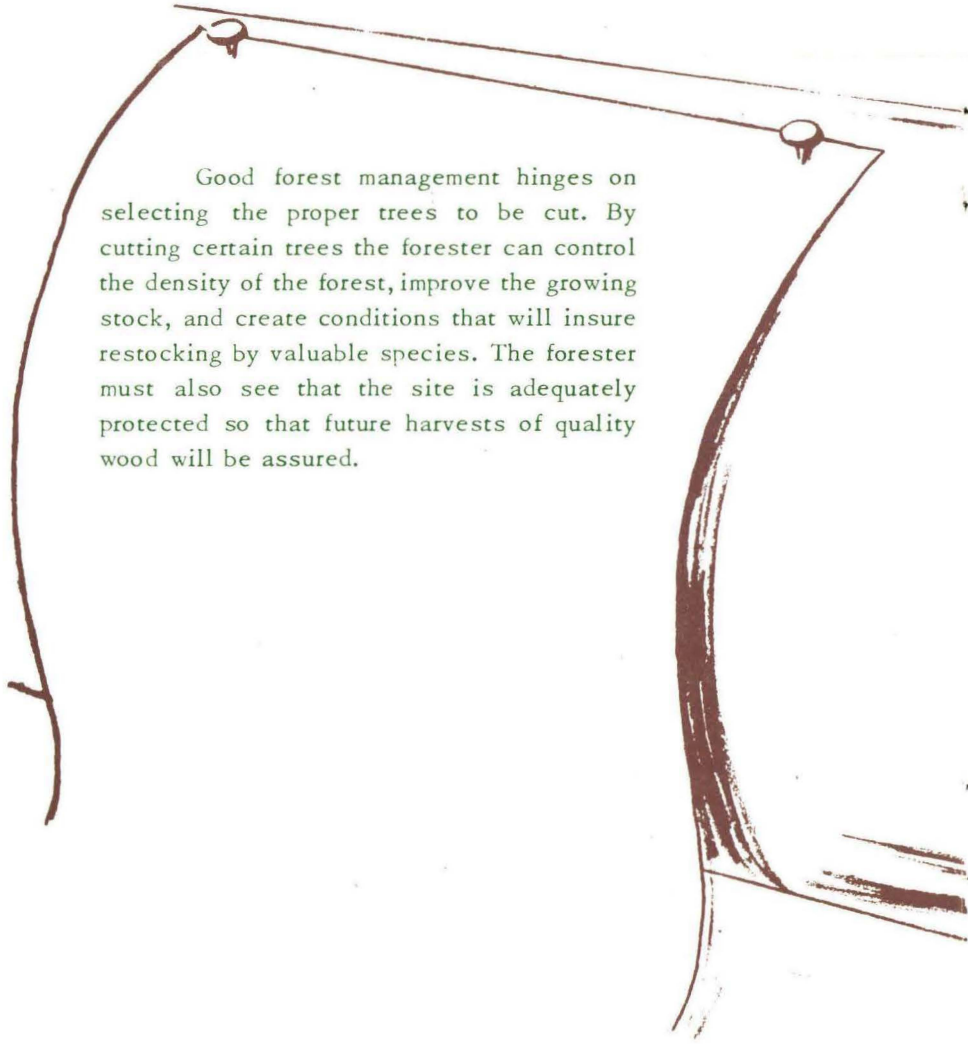


"Site quality" has to do with the ability of forest land to grow trees. All forest land is not equally capable of producing good trees of a certain species, nor do all species have the same site requirements. Things commonly considered as part of site quality are soil depth, soil texture, soil fertility, aspect, and slope.

One of the first steps toward sound, enlightened forest management is to find out the site requirements for all the commercially important trees.

## SITE QUALITY

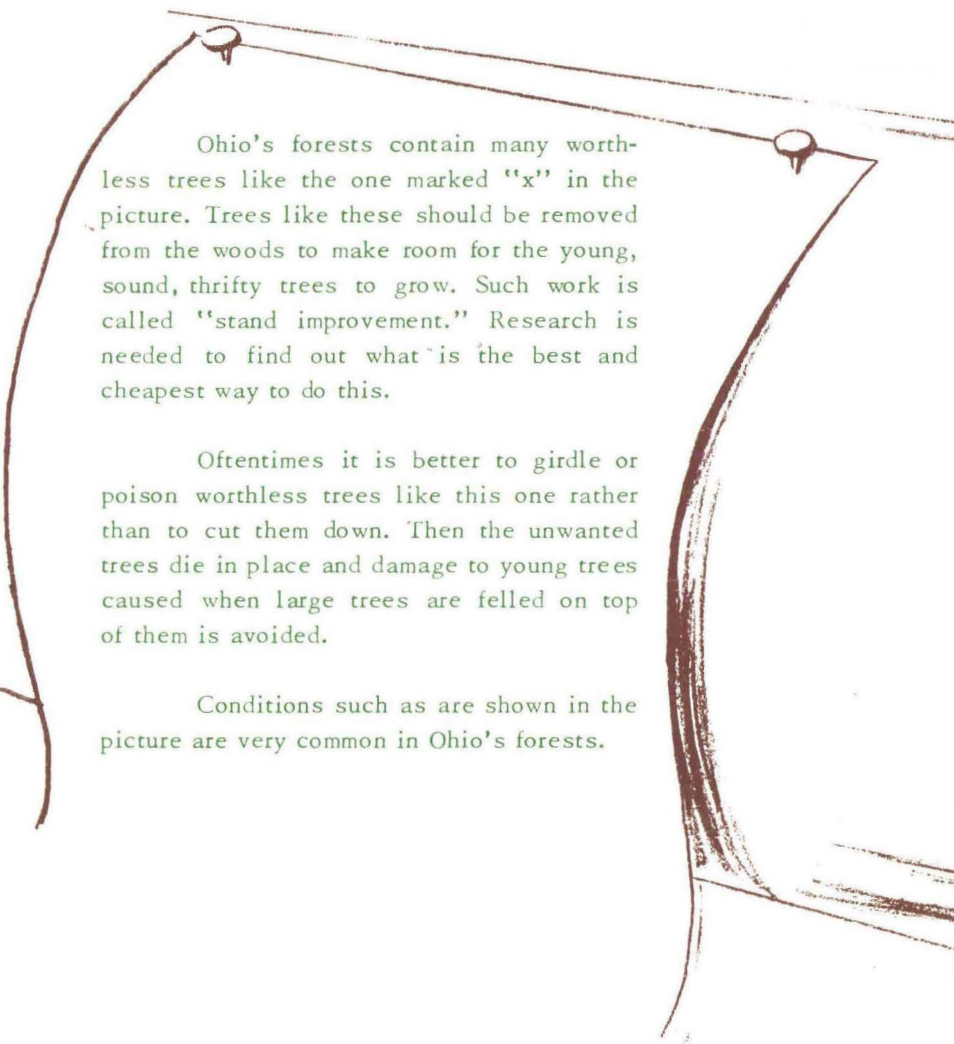




Good forest management hinges on selecting the proper trees to be cut. By cutting certain trees the forester can control the density of the forest, improve the growing stock, and create conditions that will insure restocking by valuable species. The forester must also see that the site is adequately protected so that future harvests of quality wood will be assured.

# MANAGEMENT





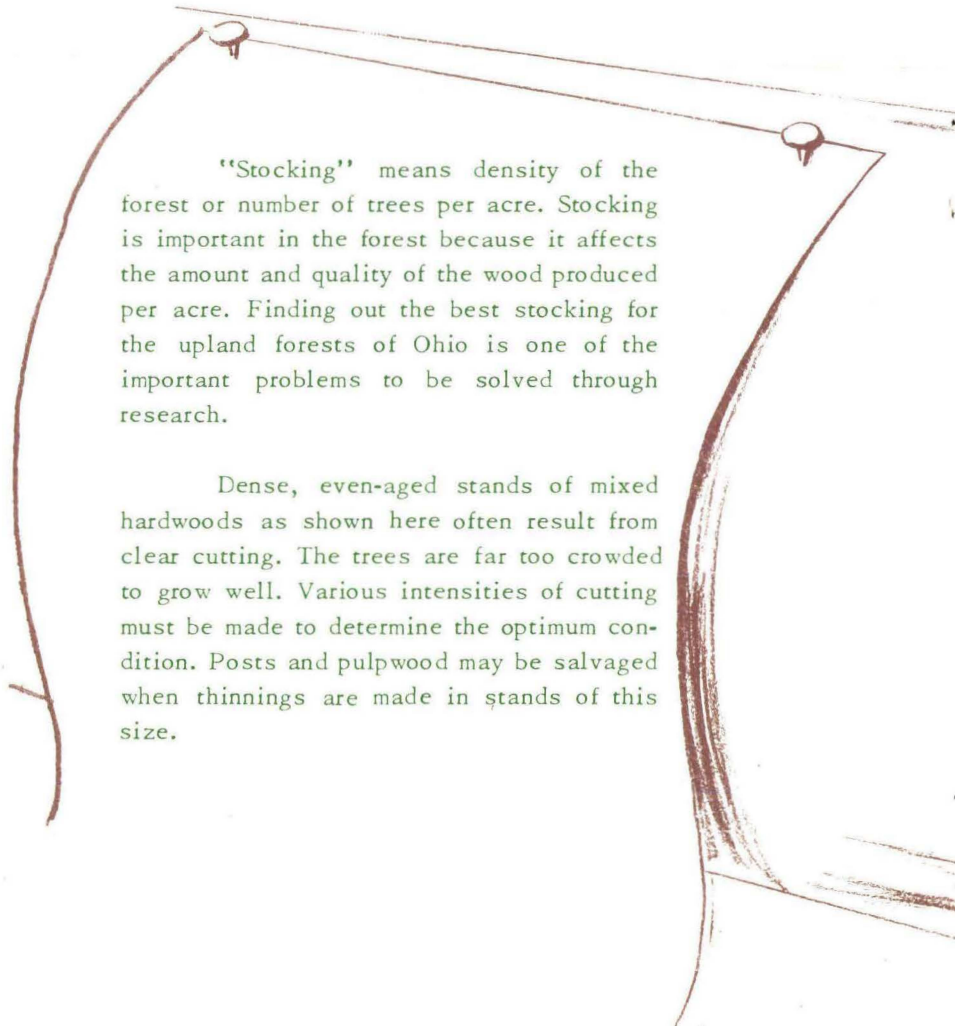
Ohio's forests contain many worthless trees like the one marked "x" in the picture. Trees like these should be removed from the woods to make room for the young, sound, thrifty trees to grow. Such work is called "stand improvement." Research is needed to find out what is the best and cheapest way to do this.

Oftentimes it is better to girdle or poison worthless trees like this one rather than to cut them down. Then the unwanted trees die in place and damage to young trees caused when large trees are felled on top of them is avoided.

Conditions such as are shown in the picture are very common in Ohio's forests.

## STAND IMPROVEMENT



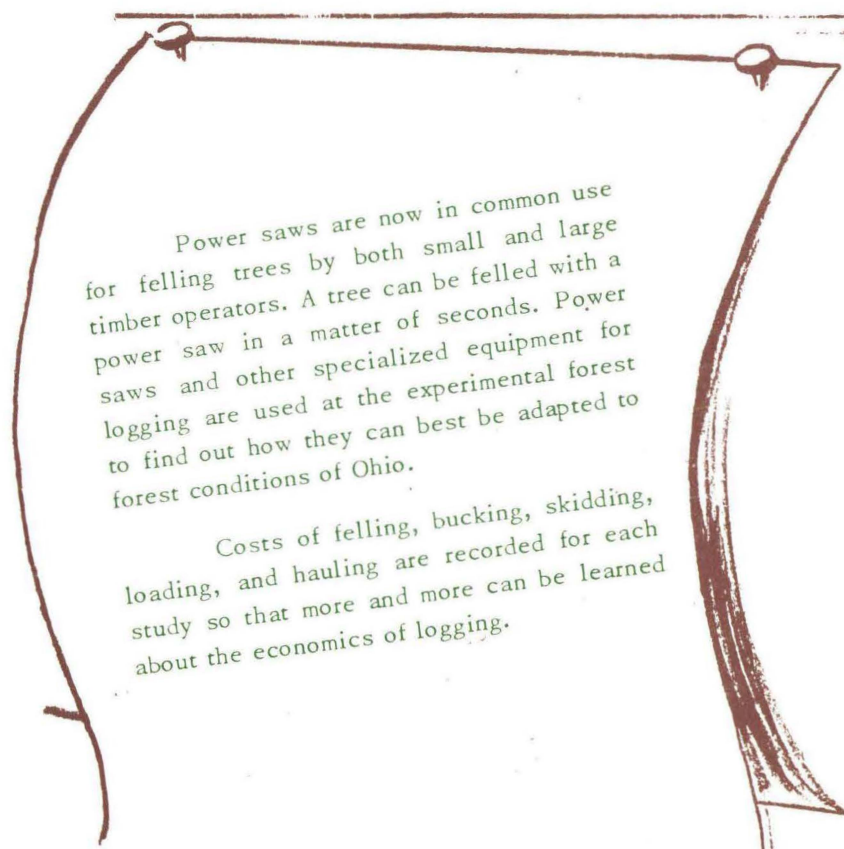


"Stocking" means density of the forest or number of trees per acre. Stocking is important in the forest because it affects the amount and quality of the wood produced per acre. Finding out the best stocking for the upland forests of Ohio is one of the important problems to be solved through research.

Dense, even-aged stands of mixed hardwoods as shown here often result from clear cutting. The trees are far too crowded to grow well. Various intensities of cutting must be made to determine the optimum condition. Posts and pulpwood may be salvaged when thinnings are made in stands of this size.

## STOCKING



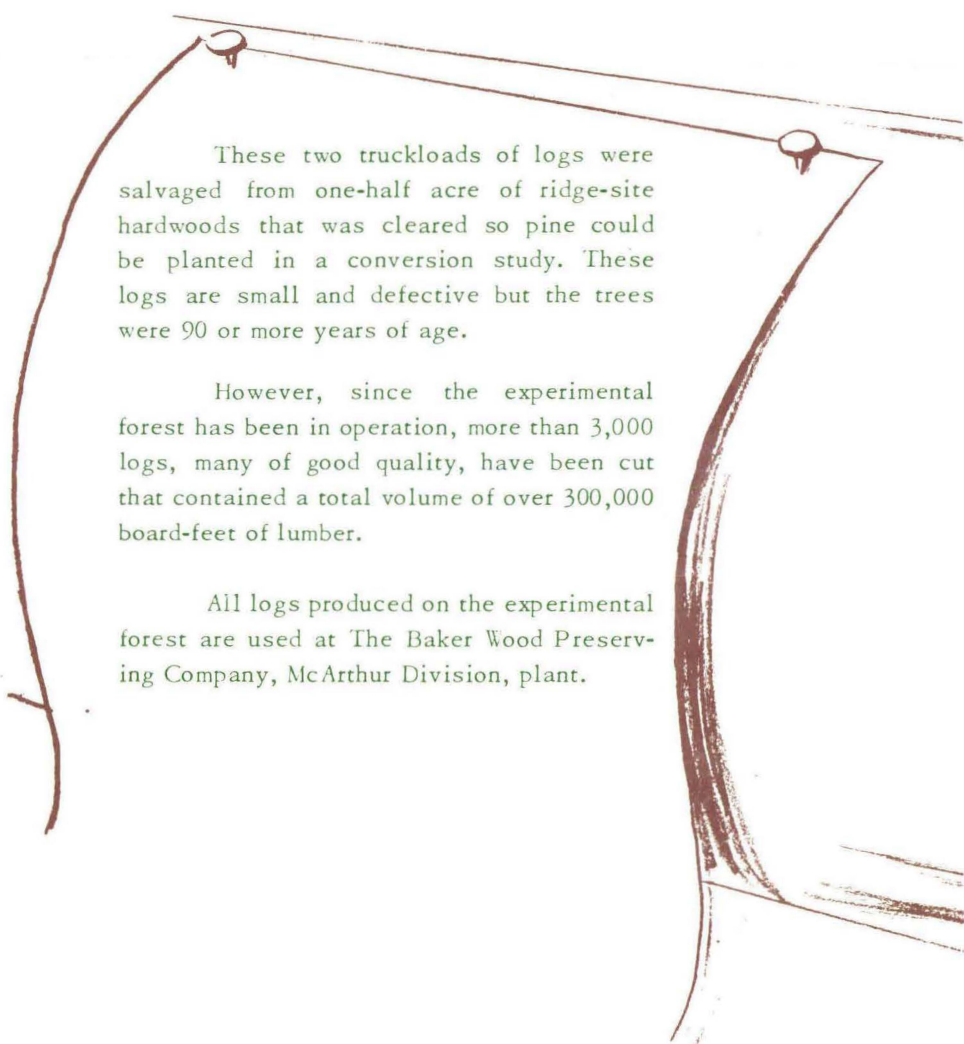


Power saws are now in common use for felling trees by both small and large timber operators. A tree can be felled with a power saw in a matter of seconds. Power saws and other specialized equipment for logging are used at the experimental forest to find out how they can best be adapted to forest conditions of Ohio.

Costs of felling, bucking, skidding, loading, and hauling are recorded for each study so that more and more can be learned about the economics of logging.

# LOGGING





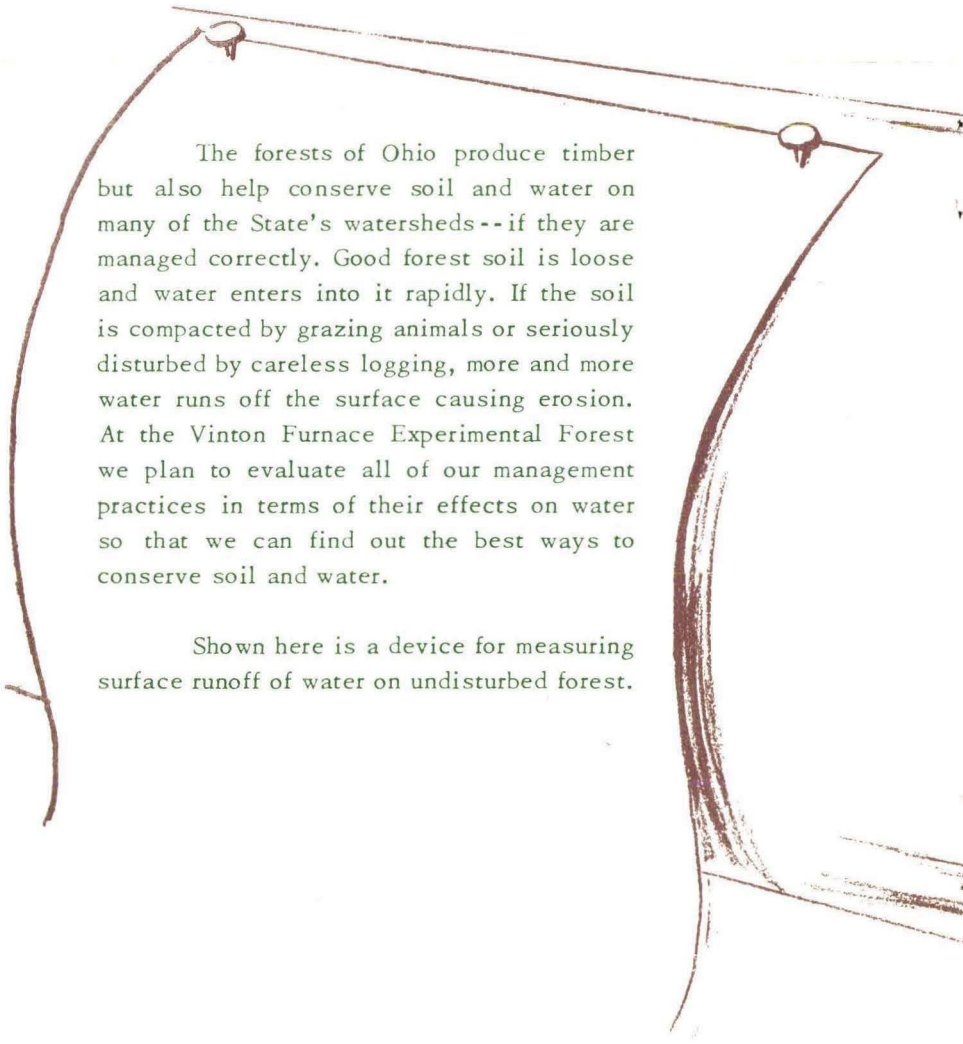
These two truckloads of logs were salvaged from one-half acre of ridge-site hardwoods that was cleared so pine could be planted in a conversion study. These logs are small and defective but the trees were 90 or more years of age.

However, since the experimental forest has been in operation, more than 3,000 logs, many of good quality, have been cut that contained a total volume of over 300,000 board-feet of lumber.

All logs produced on the experimental forest are used at The Baker Wood Preserving Company, McArthur Division, plant.

## FOREST PRODUCTS

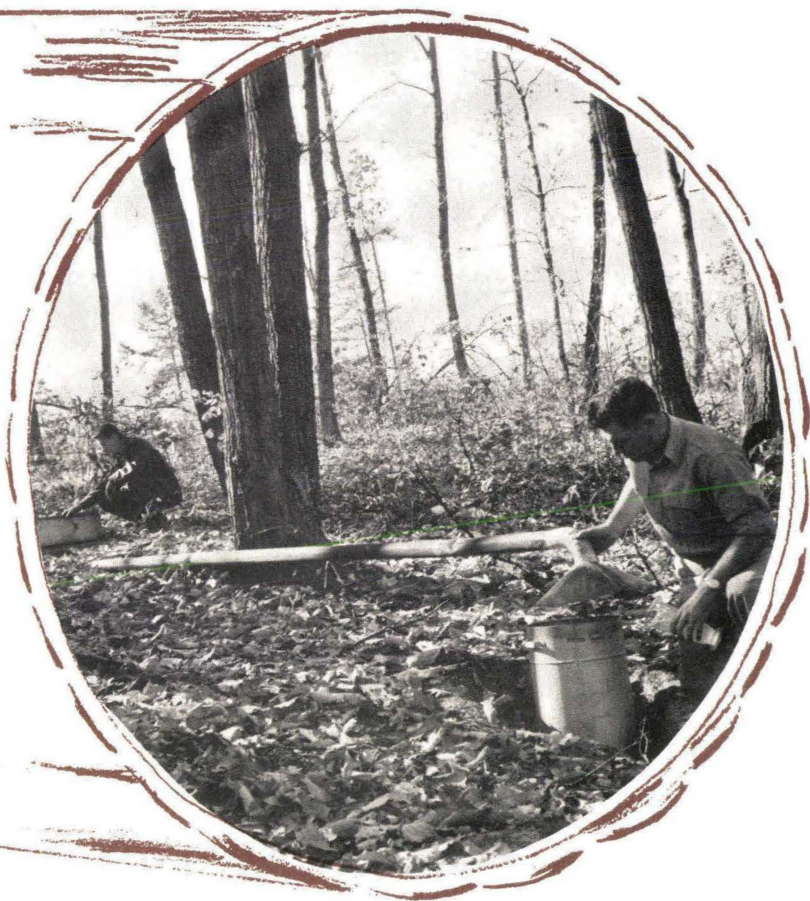


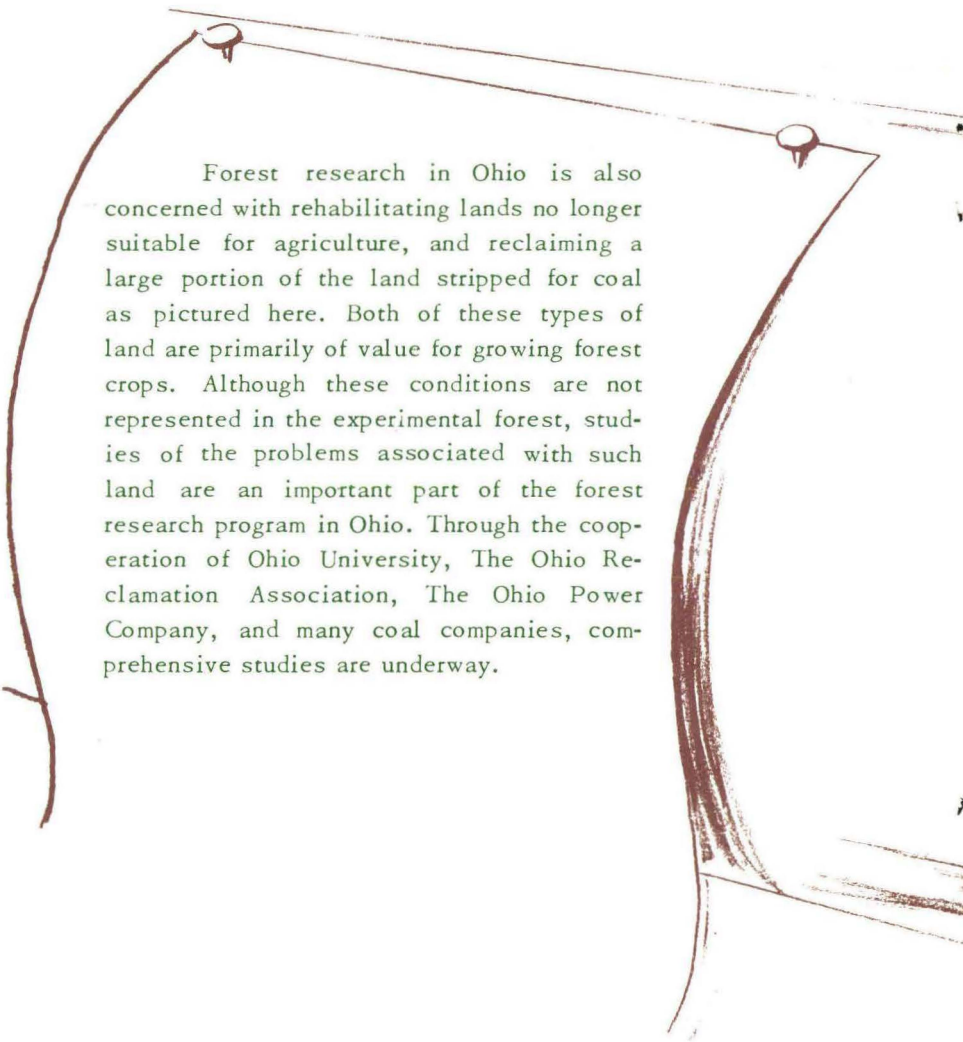


The forests of Ohio produce timber but also help conserve soil and water on many of the State's watersheds--if they are managed correctly. Good forest soil is loose and water enters into it rapidly. If the soil is compacted by grazing animals or seriously disturbed by careless logging, more and more water runs off the surface causing erosion. At the Vinton Furnace Experimental Forest we plan to evaluate all of our management practices in terms of their effects on water so that we can find out the best ways to conserve soil and water.

Shown here is a device for measuring surface runoff of water on undisturbed forest.

# WATERSHED MANAGEMENT





Forest research in Ohio is also concerned with rehabilitating lands no longer suitable for agriculture, and reclaiming a large portion of the land stripped for coal as pictured here. Both of these types of land are primarily of value for growing forest crops. Although these conditions are not represented in the experimental forest, studies of the problems associated with such land are an important part of the forest research program in Ohio. Through the cooperation of Ohio University, The Ohio Reclamation Association, The Ohio Power Company, and many coal companies, comprehensive studies are underway.

## RECLAMATION



## THE BEGINNINGS OF RESEARCH

Up to here we have been describing the major phases of the forest problem in Ohio. Defining a problem is only the first step toward solving it, however. In order to reach a solution, plans must be made, work must be done, and questions must be answered. In fact, every research project begins with a question. And so it is with forest research in Ohio. We might ask --

How large shall I let my trees grow before harvesting them?

How can I harvest commercial timber and still protect my watershed?

What species shall I plant?

Research foresters at the Vinton Furnace Experimental Forest have been approached many times by people asking such questions as these. At times our reply must be: "We don't know the answers to all your questions yet, but we're going to find out!" On the following pages we have listed some of the more common questions and described just what we're doing or planning to do to find out the answers.

## HOW MUCH SHOULD I CUT?

This is one of the basic problems in forestry everywhere. The amount cut determines not only the present profits but also the future growing conditions. A study to compare six intensities of cutting, the costs and returns from each, the residual stands, and the regeneration that results is well underway. The tests include:

### *3 Kinds of Clearcutting*

Commercial clearcut -- All trees having a minimum of one 8-foot log with a top diameter of 10 inches are cut.

Commercial clearcut with stand improvement -- Same as above but the residual stand is improved by deadening cull or undesirable trees.

Complete clearcut -- All trees regardless of size are cut.

### *2 Kinds of Selective Cutting.*

Selective cut -- A cut restricted to merchantable trees.

Selective cut with stand improvement -- Same as above but all cull or undesirable trees are deadened and understocked areas are planted where necessary.

### *A Diameter-Limit Cut*

Diameter-limit cut -- All trees meeting certain diameter limits specified by species are cut.

## HOW MUCH SHOULD I LEAVE?

This sounds like just another way of asking the question on the preceding page. The two are closely related, to be sure, but the difference is a matter of emphasis. In this case, we are more interested in finding out how much timber should be left on an area to assure good growth and quality, rather than how much we should remove to make a profitable logging operation. In practice, both questions must be considered at once, but in research we can treat them separately.

Our plan is to establish a series of plots in a 40-year-old oak-hickory stand and cut each plot to a different stocking.



## CAN I MAKE MONEY ON MY 40?

Many a small-woodland owner would like to try managing his timber, but he is doubtful about costs and returns. He does not want to buy (or rent) the necessary logging equipment unless he is sure that the investment will pay off.

Three small tracts have been selected for demonstration areas. These three tracts will be managed intensively, using various types of equipment. Careful cost records will be kept for every phase of the operation and will be compared with the ultimate returns.



## PINE OR HARDWOODS ON RIDGE SITES?

In hilly country, the ridges are usually the least productive of timber. Most of the southeastern Ohio ridges support stands of slow-growing hardwoods, so we have set up a study to find out whether pine would yield more timber on these sites. So far we have three different treatments going:

On one set of plots we have simply made an improvement cut in the existing hardwood stand to see how these trees will do if encouraged a little.

On other plots we cut off all the hardwood trees and planted the area to pines -- white, shortleaf, and pitch. These pines will be left to fare as best they can with the competition from the inevitable hardwood reproduction.

Other plots were treated similarly to the second, except that we will release the pines from hardwood competition as it becomes necessary.

In addition to comparing the yields of timber from these three treatments, we are also interested in finding out how converting ridge sites to pine will affect the soil, moisture evaporation, and water runoff.

## WHAT ABOUT WATER?

Water conservation is becoming more and more important. What is done to the surface of the land and to vegetation growing there greatly influences the fate of the water that falls on the land. This is especially true in southeastern Ohio where there are many steep hills and narrow valleys.

Since nearly half of the land in this region is forested, it is important to know what happens to the water that falls on the forests. Many facets of this broad subject are to be studied at the Vinton Furnace Experimental Forest.

For example, it is well known that logging affects both soil and vegetation. If logging roads are poorly located and constructed and skidding trails carelessly laid out they all soon become erosion channels and eventually gullies. Moreover, removing some of the trees from a stand creates new growing conditions for the trees and other plants that remain. These changes in turn affect the soil and its ability to catch and hold water.

In order to study these relationships, several small watersheds will be equipped with weirs and runoff measuring devices so that the influence of various forest treatments on water movement can be measured.

## IN ADDITION

There are other problems that are also important. Protection from forest fire, for example, is vital to good forest management. Fire destroys tree seedlings and damages timber.

Grazing in the woods is another problem that must be solved. In this region grazing and raising trees are not compatible. Grazing animals compact the soil and destroy valuable tree reproduction.

There are also wildlife management problems. The forest is the habitat for most of our game animals in this region. In southeastern Ohio grouse and squirrels, for example, depend on the forest for food and shelter. The management of wildlife is one phase of forest management that cannot be disregarded if we are to obtain the maximum multiple use of our forests.

Research on fire, grazing, and wildlife management is not specifically planned for the experimental forest at this time. Other people are carrying out such research, however, and we will cooperate on such studies whenever it is possible.

Nine weather stations have been installed on the Experimental forest. These stations have been established so that a continuous climatic record will be available as supplementary data for both forest management and forest watershed studies. Data collected include precipitation, temperature, humidity, and wind velocity.



Even research foresters spend some time working in a conventional laboratory.

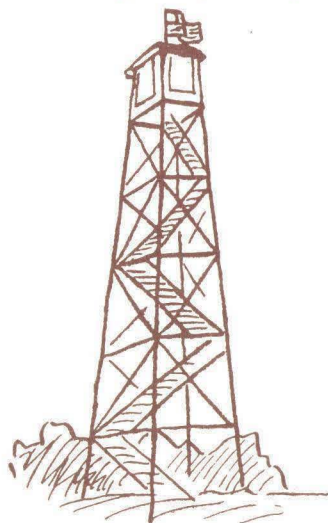
## A FORESTRY QUIZ

When people visit the experimental forest for the first time they usually ask a lot of questions about the area and about forestry in general. We are glad for this interest and are anxious to answer these questions as accurately and as completely as possible.

Certain questions are asked more frequently than others. On the following pages we have set down some of the more common ones along with the answers. We hope that this little "quiz" will help you to understand more fully the work of the research forester.

1. *Question.* — What is the one thing most essential to good forest management?

*Answer.* — If any single answer can be given to this question for this region it probably is -- protection from fire.



2. *Question.* — What is meant by “hardwoods” and “conifers”?

*Answer.* — A hardwood is a broad-leaved tree that generally sheds its leaves in the fall and produces a complete new crop of leaves the following spring. Examples are the oaks, hickories, poplar, aspen, dogwood, and cherry. The wood of hardwoods may be soft as it is with aspen, or hard and heavy as it is with oaks.

3. *Question.* — What is a “board-foot”?

*Answer.* — It is a piece of wood 1 foot long, 1 foot wide, and 1 inch thick.



4. *Question.* — What are log rules?

*Answer.* — They are rules for determining the board-foot content of logs. Different rules give different volumes for the same log because each rule differs

in allowance for log taper, saw kerf, and waste. The federal government and certain states have adopted certain rules as official for their timber transactions. Other rules have been adopted through long-term use. In Ohio most timber operators use the Doyle Rule, the State Division of Forestry uses the International 1/4-inch Rule, the U.S. Forest Service sells timber by the Scribner Decimal C Rule. On the experimental forest we keep our log records in terms of the International 1/4-inch Rule because it probably gives volumes closest to the theoretical volumes obtainable from logs of all sizes.

5. *Question.* — What type of cutting practice is best for Ohio's forests?

*Answer.* — At present we do not know. We hope to find out through our research program planned for this area. We do know that one practice cannot be successfully used for all the forest conditions in Ohio. Some stands should be selectively cut, in others several modifications of clear-cutting may prove best in the long run. Whatever method is used we do know that protection of the site and provision for reproduction must receive consideration or the production that can be expected from the land in the future may be impaired.

6. *Question.* — Is it possible to grow both sawlog trees and pulpwood trees in the same forest?

*Answer.* — Our objective for the present at the forest is sawlog production because more owners at present are concerned with the problems associated with sawlog rotations than with shorter pulpwood rotations. However, the sawlog producer also produces pulpwood in the form of thinnings from from his young stands, and from the tops of his sawlog trees.

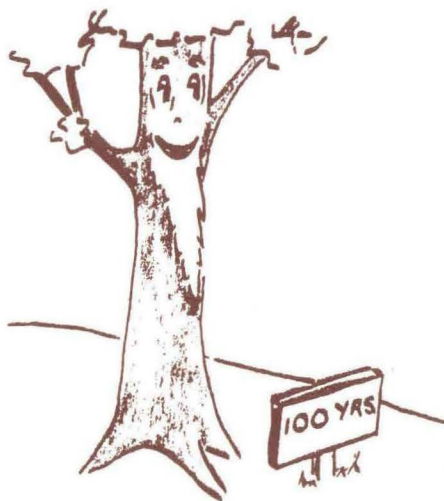
7. *Question.* — Will pine ever be important in southeastern Ohio?

*Answer.* — More pine is planted each year in Ohio and some areas are naturally seeded. While many of these will be cut for Christmas trees it is almost certain that eventually there will be an appreciable acreage of pine plantations that will reach sawlog size in southeastern Ohio. It is also possible that some of the dry sites now supporting poor-quality hardwoods will some day be converted to pine. While we can always expect hardwoods to be of great importance in the wood economy of Ohio, it is likely that pine will increase in importance also.

8. *Question.* — How long will it take the average tree to make high-quality sawlogs on the experimental forest?

*Answer.* — Probably at least 100 years and perhaps as long as 120 years. It is possible, however, that under optimum growing conditions with intensive

management this can be shortened to 80 years for some species.



9. *Question.*—How do forest soils differ from other soils?

*Answer.*—If you dig into an undisturbed forest soil you can see well-defined layers defined by color and texture. The surface layer is usually dark in color and lightest in texture. The second horizon is usually much lighter in color and heavier in texture. The final horizon is the undecomposed parent material from which overlying soil horizons are derived. Nearly all the soils of Ohio developed

under forest cover. So most of what is called "agricultural soil" today was originally forest soil. Agricultural soil has been changed by plowing and erosion. Some areas have been made more productive through draining, irrigating, and fertilizing. In agricultural soils, the upper two horizons are not recognizable due to continual working of the surface in cultivation.

10. *Question.* — What is a watershed?

*Answer.* — It is an area of land that is drained by a stream or a stream and its tributaries.

## PUBLICATIONS

The following is a list of titles of research results published to date by The Buckeye Research Center.

- (1) Finn, Raymond F.  
1952. The nutrient content of leaves and tree growth as affected by grading on three strip-mined areas. Cent. States Forest Expt. Sta. Sta. Note 70.
- (2) .....  
1953. Foliar nitrogen and growth of certain mixed and pure forest plantations. Jour. Forestry 51: 31-33.
- (3) Gaiser, Richard N.  
1949. A simple soil sampler and its use as a permeameter. Cent. States Forest Expt. Sta. Tech. Paper 112.
- (4) .....  
1951. Relation between topography, soil characteristics, and the site index of white oak in southeastern Ohio. Cent. States Forest Expt. Sta. Tech. Paper 121.
- (5) .....  
1951. Random sampling within circular plots by means of poplar coordinates. Jour. Forestry 49: 916.
- (6) .....  
1952. Root channels and roots in forest soils. Soil Sci. Proc. 16: 62-65.

- (7) Gaiser, Richard N.  
1952. Readily available water in forest soils.  
Soil Sci. Proc. 16: 334-338.
- (8) ..... , and Campbell, J. R.  
1951. The concentration of roots in the white oak  
forests of southeastern Ohio. Cent. States  
Forest Expt. Sta. Tech. Paper 120.
- (9) ..... , and Merz, Robert W.  
1951. Stand density as a factor in estimating  
white oak site index. Jour. Forestry 49:  
572-574.
- (10) Limstrom, Gustaf A., and Merz, Robert W.  
1949. Rehabilitation of lands stripped for coal in  
Ohio. Cent. States Forest Expt. Sta.  
Tech. Paper 113.
- (11) ..... , and Merz, Robert W.  
1951. Overburden analyses and strip-mine condi-  
tions in the northwestern district of the  
Ohio coal-mining region. Cent. States  
Forest Expt. Sta. Tech. Paper 124.
- (12) ..... , and Merz, Robert W.  
1951. Overburden analyses and strip-mine condi-  
tions in southeastern Ohio. Cent. States  
Forest Expt. Sta. Tech. Paper 127.
- (13) Merz, Robert W.  
1949. Character and extent of land stripped for  
coal in Kentucky. Ky. Agr. Expt. Sta.  
Cir. 66.

- (14) Merz, Robert W.  
1951. Comparative survivals and costs of plantations by different methods of ground preparation and planting. Cent. States Forest Expt. Sta. Sta. Note 64.
- (15) ..... , and Finn, Raymond F.  
1951. Differences in infiltration rates on graded and ungraded strip-mined lands. Cent. States Forest Expt. Sta. Sta. Note 65.
- (16) ..... , and Plass, William T.  
1952. Natural forestation on a strip-mined area in Ohio. Cent. States Forest Expt. Sta. Sta. Note 68.
- (17) ..... , and Plass, William T.  
1952. Natural regeneration on old fields in southeastern Ohio. Cent. States Forest Expt. Sta. Tech. Paper 129.
- (18) Plass, William T.  
1952. Direct seeding tests on old fields in southeastern Ohio. Cent. States Forest Expt. Sta. Sta. Note 71.

# COMMON AND SCIENTIFIC NAMES OF COMMERCIAL TREES FOUND ON THE VINTON FURNACE EXPERIMENTAL FOREST

| <i>Common Name</i>                 | <i>Scientific Name</i>                     |
|------------------------------------|--------------------------------------------|
| 1. Pitch pine                      | <i>Pinus rigida</i> Mill.                  |
| 2. Eastern white pine<br>(Planted) | <i>P. strobus</i> L.                       |
| 3. Shortleaf pine                  | <i>P. echinata</i> Mill.                   |
| 4. Bigtooth aspen                  | <i>Populus grandidentata</i> Michx.        |
| 5. Black walnut                    | <i>Juglans nigra</i> L.                    |
| 6. Butternut                       | <i>J. cinerea</i> L.                       |
| 7. Shagbark hickory                | <i>Carya ovata</i> (Mill.) K. Koch         |
| 8. Mockernut hickory               | <i>C. tomentosa</i> Nutt.                  |
| 9. Pignut hickory                  | <i>C. glabra</i> (Mill.) Sweet             |
| 10. American beech                 | <i>Fagus grandifolia</i> Ehrh.             |
| 11. American chestnut              | <i>Castanea dentata</i> (Marsh.)<br>Borkh. |
| 12. White oak                      | <i>Quercus alba</i> L.                     |
| 13. Post oak                       | <i>Q. stellata</i> Wangenh.                |
| 14. Chestnut oak                   | <i>Q. prinus</i> L.                        |
| 15. Chinkapin oak                  | <i>Q. muehlenbergii</i> Engelm.            |
| 16. Northern red oak               | <i>Q. rubra</i> L.                         |
| 17. Black oak                      | <i>Q. velutina</i> Lam.                    |
| 18. Scarlet oak                    | <i>Q. coccinea</i> Muenchh.                |
| 19. Yellow-poplar                  | <i>Liriodendron tulipifera</i> L.          |
| 20. American sycamore              | <i>Platanus occidentalis</i> L.            |
| 21. Black cherry                   | <i>Prunus serotina</i> Ehrh.               |
| 22. Sugar maple                    | <i>Acer saccharum</i> Marsh.               |
| 23. Silver maple                   | <i>A. saccharinum</i> L.                   |
| 24. Red maple                      | <i>A. rubrum</i> L.                        |
| 25. Ohio buckeye                   | <i>Aesculus glabra</i> Willd.              |
| 26. American basswood              | <i>Tilia americana</i> L.                  |
| 27. Blackgum                       | <i>Nyssa sylvatica</i> Marsh.              |
| 28. White ash                      | <i>Fraxinus americana</i> L.               |
| 29. Green ash                      | <i>F. pennsylvanica</i> Marsh.             |

## RESEARCH STAFF



Left to right:

Standing - Willard H. Carmean; Robert W. Merz, forester-in-charge.

Sitting - William T. Plass, forest superintendent; Raymond F. Finn; William V. Pierce; Clyde M. Morris.

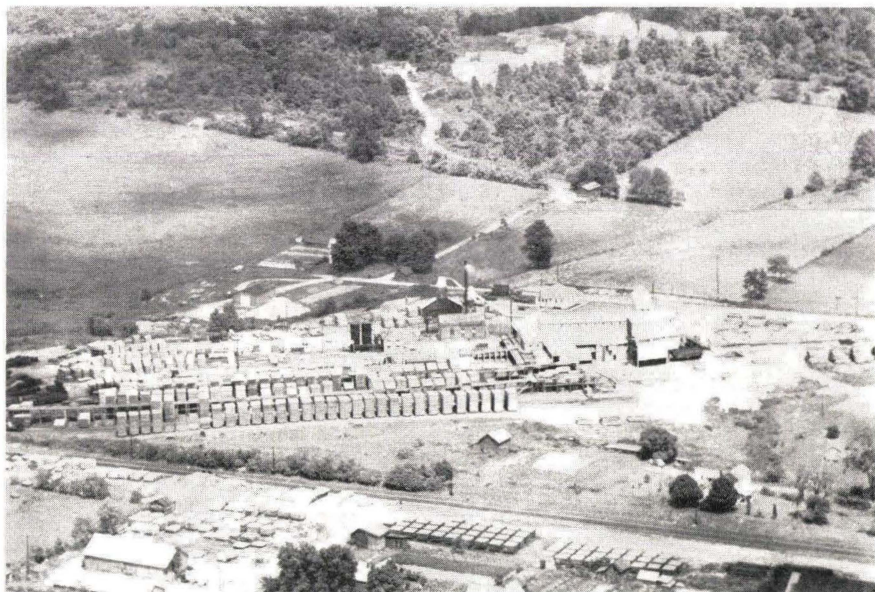
## **ATHENS FOREST RESEARCH CENTER ADVISORY COUNCIL**

The Athens Research Center, which directs and conducts the work at the Vinton Furnace Experimental Forest, is served by a 14-man Advisory Council. The members of this Council represent all groups in the State, both public and private, that are interested in forestry and conservation. The group meets at least once a year to review past progress and to suggest and discuss plans for the future.

### **MEMBERS OF BUCKEYE ADVISORY COUNCIL**

|                                                         |                                                          |
|---------------------------------------------------------|----------------------------------------------------------|
| O. A. Alderman<br>Ohio Division of Forestry             | R. H. Grabow<br>Wayne-Hoosier National<br>Forest         |
| Bryce Browning<br>Muskingum Conservancy<br>District     | Claude I. Hummel<br>Federal Reserve Bank<br>of Cleveland |
| Larry Cook<br>Ohio Reclamation<br>Association           | T. C. Kennard<br>Soil Conservation Service               |
| Burton DeVeau<br>Ohio University                        | James J. McKitterick<br>McKitterick Coal Company         |
| O. D. Diller<br>Ohio Agricultural<br>Experiment Station | John Reiser<br>Ohio Power Company                        |
| C. L. Dow<br>Ohio University                            | Howard M. Wells<br>Ohio Forestry Association             |
| D. B. Frampton<br>D. B. Frampton Company                | C. V. Youngquist<br>Ohio Dept. of Natural<br>Resources   |

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